[M]ARINE RECORD.

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AROUND THE LAKES.

CLEVELAND.

The interest in the propeller Business, purchased by Philan Johnson is 1-16, for which he paid $3,500.

John Thompson and Quincy Miller are [t]he Cleveland delegates to the Buffalo con-[ve]ntion of the M. E. B. A.

[W]. H. Radcliff, shipbuilder, is giving the [...]on [...] J. Webb new upper works, and [...] tug Charles Castle.

[...]rick, local inspector of boil-[...] has resigned, to take effect [...]cessor qualifies.

[...]e Stone sold a 1-24 interest [...] Thomas Quayle to Captain [...], of the S. P. Ely.

[...]rewster, of Detroit, Michigan, [...]aw, was in attendance upon the [...]tes district court yesterday.

[...]anna, as trustee of the Winslow [...], has sold to A. Campbell 4-16 and H. Johnson 1-16 of schooner Helvetia; consideration $7,000.

The new steamer building at St. Clair, Mich., has been named "Simon Langell," after the builder, who is also part owner. Captain John C. Pringle is also part owner, and will sail her.

In the case in admiralty of John Cooper against the steambarge Samuel F. Hodge, in which the libelant makes claim for wages and expenses as deck hand during the latter part of the season of 1885, Judge Welker has granted the libelant leave to file an amended libel, and the amended libel has been filed.

A decree has been rendered by Judge Welker, of the admiralty court, in favor of the Phœnix Insurance Company, of Brooklyn, New York, against the barge Colonel Brackett, for $634.50, upon its respective claims for salvage and premium for insurance. The former amounted to $430.50 and the latter to $204.00.

The annual ball of the union sailors took place at Froshinn hall, the pleasures of whic[h] will be long remembered. When th[e] o[rchest]ra struck up with a march, All hands [...] at 9 o,clock the hall was quite fille[d with m]erry sailors. At 12 o'clock a sum[ptuous supper] was served which was thorough[ly enjoye]d.

Renfrew W[i]lcox, marine artist, has placed in the amateur exhibition at Ryder's art gallery, on Superior street. [T]wo spirited pastel marine pictures, one representing a burning schooner and a side wheel steamer coming head on to the rescue, and the crew of the schooner being transferred in the small boat. The other is a very accurate representation of th[e] iron propeller J. H. Devereux. Both pictures reflect much credit on the young artist, and will be readily appreciated by marine me[n].

W. H. Radcliff has contracted with H. J. Webb & Co., and others, to build a steamship of the following dimensions: Length of keel 220 feet, length over all 245 feet, breadth of beam 37 feet, depth of hold 19 feet. She will have three masts, and double decks with iron houses. Her engine and boilers will be built by the Globe Iron Works and will be duplicates of those in the steamship J. H. Devereux, the engine being fore and aft compound, 27 and 50 by 36. The boilers will be 10½ by 17. She will be provided with all the latest improvements, and will be ready for sea by the first of July.

The occasion of the 25th anniversary of the wedding of Napoleon Tovat and his good wife last Thursday evening, was largely attended and much enjoyed by all present. The happy pair were overwhelmed with tokens of esteem evidenced by their friends, in presents manufactured of silver, (a metal which is now attracting much attention of congressmen and the business world) turned into every conceivable design, the articles numbering about forty-five pieces. It was thought that toward the end of the reception "Poley" got weary, and the party adjourned to a hall in Lorain street to "chase the glowing hours with flying feet."

The new steamship being built by Mr. Radcliff will be provided by G. C. Barnes with an Ætna shaking grate.

Captain Ira Mansfield, for two years manager of A. Young & Co.'s coal business at Amherstburg, Ont., will sail again next season.

The friends of Captain Thomas Wilson and his wife will be pained to learn of their sad affliction in the loss of their little son, David M., who died on Wednesday after a lingering and painful sickness, aged 13 years and 10 months.

EAST SAGINAW.

Special to the Marine Record.

The Saginaw river is now frozen over for good. But ten days previous to this the tug Anna has been in commission, transferring lighters of lumber from the various mills, a thing that never occurred in this section before at this time of the year.

Captain Charles D. Van Norman, who sailed the schooner A. T. Bliss last season, is to command one of the Toledo & Saginaw transportation boats next season.

Captain John Kelly has sold to Lewis D Sanborn a one-half interest in the schooner Goshawk, while Captain Kelly has purchased of Mr. Sanborn a one-fourth interest in the new steambarge J. H. Prentice.

Captain Harry May, of the barge Transport, is putting in the winter in the coasting trade, with headquarters at Baltimore, Md.

SHAW.

TOLEDO.

Special to the Marine Record.

Propeller City of Concord arrived here last Wednesday from Port Huron to load coal. She loaded Thursday and left here Friday morning for Port Huron, but when she got down on the bay found the ice too heavy and returned and laid up here for the winter.

Captain G. W. Stoddard, formerly master of the propeller Gault, has been appointed master of the steamer Mascotte for the season of 1886.

Ice in Maumee river and bay is eight inches thick.

Captain Peabody is thoroughly overhauling the barges Sprague and Butman in Swan creek.

Ohio Yacht Club is negotiating for the purchase of Guard's islands, in the Maumee bay, to make it their headquarters. J.

MT. CLEMENS.

Special to the Marine Record.

Mr. William Chall, owner of the tow barge Nellie, formerly consort of the steambarge Handy Boy, will fit the Nellie up for a passenger boat. Her engine and boiler were purchased from the owners of the passenger steamer Island Queen which was burned at Detroit last summer. Her engine is a steeple compound, and was purchased for $1,000. Her route will, perhaps, be between Mt. Clemens and Detroit, for freight and passengers. She can also be chartered for excursions three days out of the week.

The steambarge City Mt. Clemens, Captain Gilbert Lacroyx, last season made forty-two down trips with lumber from Oscoda to Detroit and Toledo, carrying about seven millon feet of lumber, beside up freight, starting out May 13 and laying up November 23.

L.

OGDENSBURG.

Special to the Marine Record.

Following is a list of vessels laid up at Ogdensburg, N. Y., with the names of the masters: Schooners, Wm. I. Preston, Captain John Vanalstine; L. Seaton, Captain Chas. Howard; E. P. Beals, Captain T. Boland; C. B. Benson, Captain J. Duff; A. L. Andrews, Captain Frank Boland; D. G. Fort, Captain C. H. Daniels; Riverside, Captain M. Enright; Comanche, Captain Wm. Becker; Willie Keller, Captain Thos Murray.

C. D.

BUFFALO.

Special to the Marine Record.

G. F. Williams, who held the position of assistant superintendent shipbuilder at the Union Drydock Company's shipyard for ten years, goes this week to Bay City to take charge of the mechanical department at F. W. Wheeler's shipyard. He takes with him the best wishes of all his friends for his future welfare.

At R. Mills & Co's. drydock, the propeller J. P. Donaldson is in receiving new steel arches 20 inches by five eights of an inch, also a center arch in the hold about 100 feet long 5 feet high of 4 inch on each side of the stanchions, the whole capped with a steel plate 4 inches wide by ¾ of an inch thick fastened to the keelsons at both ends, and a thorough recalking. The propeller J. E. Potts is in receiving new floor timbers, floor ceiling, bilge keelsons, four courses of main keelson, riders three courses, and an upper keelson of two courses, her bottom recalked and general repairs.

The propeller Alaska will receive entire new upper works.

The propeller White & Friant will go into dock and receive new steel arches 18x⅝, two hog posts, recalking and general repairs. The propellers Fountain City and Idaho will go into deck and receive repairs to their arches and considerable other repairs. The schooner Fannie B. Gardner will receive new decks and other general repairs. The barge Dan Rodgers will receive considerable repairs. The schooner John Wesley, which was ashore at Windmill point and was purchased by H. J. Mills in October last, has been repaired and made A2 again at R. Mills & Co.'s shipyard and was sold last week to Edward Mitchell of Oswego for $5,000 cash, without anchors and chains and a portion of her outfit, which were lost.

At the Union Drydock Company's the new steamship of steel for the Anchor Line Company, will be 322 feet over all, 40 feet beam 26 feet depth of hold; she will have a triple compound engine, 3 cylinders on one shaft, two low pressure 51 inches diameter, and the high pressure 36 inches in diameter, piston 48 inch stroke, to be built by Trout of the King Iron Works she will have four boilers 13 feet shell, 11 feet long, ¾ of an inch thick, of steel, to be built by the Erie Boiler Works she will also have a No. 7 steam windlass, and a steam capstan aft, manufactured by the American Ship Windlass Company and steam steering gear and every modern improvement to make her a high class steamship.

The propeller Avon is in dock for new steel arches; propeller Portage will go in for same; considerable work is being done on the Union Line Co's. propellers Starucca, Newburgh, Nyack, Dean Richmond, Saint Louis and Arctic. The Anchor Line propeller Delaware is receiving new deck over her coal bunkers, the propeller Arizona a new main deck, the barges Elma and Hattie will receive new decks; the propeller New York will be recalked all over the L. M. & L. S. T. Co's propeller City of Duluth is in drydock receiving a thorough rebuild comprising new cants and frames forward and aft, leaving no unsound timber in her anywhere, new ceiling forward and aft, new keelsons under boiler 4 extra floor keelsons, 5 strakes of outside plank from the plank sheer down, new plank-sheers, all new deck stanchions, bulwarks and rails, new arch posts and new steel arches, side plates 16 inches wide by half an inch thick, top plate 14 inches wide, three quarters of an inch thick, arch rods and plates, entire new deck frames, new main deck, new hatch combings new shelf piece very heavy, thoroughly fastened heavy hanging knees to every frame, recalked all over and ironed; the promenade deck will be raised 16 inches; she will have new stringers under the promenade deck and new back stanchions, three new state rooms and cabin, new main stairway, two new offices for clerk and steward between decks; new passenger gangway, all new closets; the cabin will be fitted up with all modern improvements conducive to the comfort of passengers. Her engine and machinery will receive a thorough overhauling by H. G. Trout, who will also supply her with a new 10 foot wheel; her main boiler will have entire new furnace stays stay bolts and legs and all the flues will be replaced by new to be done by Riter Brothers, who will also supply her with a new donkey boiler of steel, and she will have steel beams and steel deck over her boiler. The American Ship Windlass Company will also supply her with a new latest improved Providence windlass, to be placed on her main deck, Captain Lyman Hunt, who commands her, is in constant attendance looking after the work and will have good reason to be proud of his almost new boat when she is completed.

Howard H. Baker & Co., shipchandlers, have supplied the schooner John Wesley with two anchors and seventy-five fathoms of chain, the propeller City of Duluth with seventy-five fathoms of chain, the barge R. J. Carney with eighty fathoms of 7½ inch hawser, and they are furnishing the schooner S. V. R. Watson with some new sails. The firm are removing their ship chandlery goods, etc., to their new premises, corner of the Terrace and Pearl street, and hope to be settled there ready for business, by February 1st.

The Lake Erie Excursion Company have asked the Union Drydock Company to prepare plans and specifications for a new excursion steamer to equal the steamer Periwinkle in speed and to carry from 1200 to 1500 passengers.

In addition to the work doing by H. G. Trout, King Iron Works, mentioned in Buffalo Drydock notes, they are building a steeple compound engine with cylinders 20 and 36 inch bore and 36 inch stroke, and a 9 feet 2 inches Trout wheel, for the Milwaukee Shipyard Company's new steambarge.

WILLIAMS.

CHICAGO.

Mr. W. O. Johnson, one of the owners of the lost schooner Orphan Boy, who has been looking over the wreck at Point au Sauble, is in the city. He believes that the Orphan Boy ran aground about December 6 under full sail, as the masts were broken off close to the deck. The schooner then went to pieces and washed ashore have been discovered, and some venture the opinion that they were found by the fishermen, who are the only inhabitants of the shore, and after being stripped of their valuables were buried. Captain Halliday carried several hundred dollars and a valuable gold watch. The cook also had considerable money.

VERMILLION.

Special to the Marine Record.

Captain James Stuart and wife have been spending a few days with parents and relatives in Cleveland.

Mr. B. S. Horton went to Washington last week to try to obtain an appropriation for the harbor at this port. What success he met with we are unable at this time to state.

Captain J. Doville, wife and son, of Cleveland, have been visiting at the residence of Mr. R. Case.

Messrs. Gilchrist & Co. having added a jig-saw to their mill property, and made other improvements, now have a repair yard of their own. The entire fleet is undergoing repairs, but the most extensive improvements are being made to the following vessels: Besides general repairs, a new deck is being added to the schooner S. P. Foster, new decks and quarter rails to the schooner Crosthwaite and Francis Palms.

M. M. Thompson, a shipcarpenter in the employ of Gilchrist & Co., met with a painful accident at the above firm's yard, by having his foot crushed under a heavy piece of timber.

K.

MARITIME LAW.

COLLISION—STEAMER AND VESSEL AT ANCHOR —ABSENCE OF ANCHOR LIGHT.—PENN. RR. CO. VS. THE ERASTUS CORNING.

U. S. District Court, Southern District of New York.

1. The schooner Foam was lying at anchor in the harbor of New Haven on the night of June 25, 1884. She was on the regular anchorage ground, but not far from the steamer channel, which is narrow and irregular. The night was dark and somewhat thick with rain, and the Foam had no anchor light, nor an anchor watch. While in this situation, she was run into by the steamer Corning, which was proceeding slowly out of the harbor, bound for New York, and which was slightly off the regular channel. On suit brought against the steamer for the damage sustained by the schooner, held, that the collision was due to absence of an anchor light on the schooner.

2. When vessels are at anchor in places where other vessels are not reasonably to be expected to pass it is not the usage, and it seems that it is not a maritime duty, to maintain an anchor watch.

3. But in a narrow channel way, near the usual place where steamers start, whenever the weather is thick and lights likely to be obscured, it seems that the neglect of an anchor watch and of the exhibition of a torch to approaching steamers should be deemed a neglect of ordinary prudence, as well as of the intention of the law.

Wilcox, Adams & Mackin for libelants; Goodrich, Deady & Platt for claimants.

Brown, J.

The libelants' schooner Foam while at anchor in the harbor of New Haven, at about half past 10 p. m. on June 25, 1884, was run into by the steam propeller Erastus Corning in coming out of the harbor bound for New York. The place of the collision, as I find from the weight of evidence, was a little less than one-half of a nautical mile below the long dock light, and from ½ to ⅔ of the distance between that light and the black buoy, and probably from 100 to 200 feet west of a line joining those points, in about 9 feet of water at low tide. The buoy is near the western edge of the dug-out channel. The night was dark and somewhat thick with the rain or mist, but without fog.

Various points are raised in the defence, but the only one I find it necessary to consider is the allegation that the schooner displayed no light. The channel from the sound up to New Haven light consists of a dug-out portion about 600 feet wide, and upon the westerly side, a further margin of natural channel, having from 7 to 12 feet of water, and very irregular and variable both in breadth and depth. The schooner drew some 7 or 8 feet of water. The tide rises and falls an average of 6 feet, and the mud at the bottom is so soft that steamers can run through it to the depth of a foot. Where the Foam lay the margin of available water to the west of the channel would appear from the chart to be some 500 or 600 feet at low tide. A quarter of a mile below it is much less. Steamers are accustomed to plying regularly between New Haven and New York, going in and out daily, by night and day, drawing from 9 to 10 feet of water.

The usual anchorage for sailing vessels is either up near the long dock, or farther down, and in the vicinity where the Foam lay, between the dug-out channel and the margin of the natural channel.

The Foam was within the usual and proper anchorage ground, but the passage way for steamers accustomed to go in and out was so narrow that the necessity and the duty of maintaining a good anchor light are manifest. The case is within the spirit, and apparently within the letter of rule 10, section 4233 of the Revised Statutes, which requires vessels at anchor in roadsteads or *fair-ways* to exhibit a white light. The weight of evidence is clearly to the effect that at the time of the collision no light was visible. The officers and lookout were watching carefully for lights as they proceeded slowly downwards. They passed among and between several vessels near the long dock, but as they approached the Foam, saw no light and nothing of her until within 100 or 200 feet, when the collision was inevitable. After the collision, the Corning, in backing out of the way, backed out of sight of the Foam to the N. W., and was obliged to feel her way towards her again, no light being visible, though carefully looked for. That no light could be seen under such circumstances is satisfactory proof to me that there was no light at the time of the collision. (The Royal Arch. 22 Fed. Rep. 457; the state of Alabama, 17 do. 847,. 862) It is not necessary to inquire by what mistake of the captain, or by what accident, the light failed at the time of the collision, or under what mistake the witnesses of the libelants testified, who stated that they saw it burning in its place the next morning. On the latter point much the larger number of witnesses testified that after the collision no light was burning.

The claimants further contend that the schooner was in fault for not maintaining an anchor watch, and also for not showing a flash light as the steamer approached. In the case of the Lizzie Henderson (20 Fed. Rep. 524) it was held by Judge Locke that a schooner lying at anchor in the channel way in the harbor of Cedar Keys was bound to show a torch light. If it is the duty of schooners at anchor to show a torch light, the duty of maintaining an anchor watch necessarily follows. Both duties may perhaps be dependent upon the same circumstances, namely whether the vessels are at anchor in places where other vessels are reasonably to be expected to pass. When not in that situation, it certainly is not the usage, and it is not, I think, a maritime duty, to maintain an anchor watch, and I should have some hesitation in holding that it was the intention of Congress in requiring torch lights to be exhibited, under section 4234, to change the maritime usage in respect to an anchor watch, or that such a watch should be maintained for the mere purpose of exhibiting a torch to a steamer in a situation where no steamer was reasonably to be looked for. The context in section 4234 refers to vessels that are "*navigated*," and the cases cited are those of anchorage in or very near the channel way, where such steamers were to be expected. (See the Clara, 13 Blatch 509; 102 U. S. 200; the Sapphire, 11 Wall, 170; the Lydia, 4 Ben. 523; the Isaac Bell, 9 Fed. Rep. 802 and cases there cited.) In a narrow channel way, like that of New Haven, and at such a distance from the usual place where steamers start, whenever the weather is thick, and lights likely to be obscured, I am inclined to think that the neglect of an anchor watch and of the exhibition of a torch light to approaching steamers, should be deemed a neglect of ordinary prudence, as well as of the intention of the law. But it is not necessary to decide definitely on this point, as I have no doubt that the usual light failed, which the schooner was bound to maintain.

I have carefully considered the course of the Corning, and cannot pronounce her in fault. She was moving under a single bell slowly, and her officers and men were watching carefully. Although she was a short distance to the westward of the dug-out channel it was not more than was compatible with careful navigation upon a thick night, and in the absence of exact ranges. She was necessarily somewhat deflected from her usual course by the necessity of avoiding other vessels, nearer to the dock. Had the Foam's light been visible as required by law, I cannot doubt that it would have been seen, and that the Corning would have had no difficulty in avoiding her, and that the collision must be ascribed solely to the want of a proper anchor light.

The libel will therefore, be dismissed, but, under the circumstances, without costs.

October 28, 1885.

DULUTH BOARD OF TRADE.

The opening ceremonies of the new Board of Trade were carried out. The visitors included delegates from all the northwestern boards of trade, and farmers and shippers from the Red River Valley, Dakota and Minnesota state officials, and friends of members from many places. The attendance from abroad was about two hundred.

The afternoon session of the board was omitted on account of the proceedings, but the members did not refrain from trading. The last lot of wheat on the regular board sold at 94⅞c. for May. The members began early to gather at the old rooms, and long before the time for leaving, the place was filled with them and visitors. The exercises were delayed half an hour, waiting for the arrival of the special from St. Paul. At about 3:20 Siebert's band played in the hallway where the board of trade men congregated to form in order of march. While waiting three enthusiastic cheers and a tiger were given for the old building. The band played "Auld Lang Syne," the members singing. The procession formed and made its way to the new structure. After its arrival there the trading room soon filled with guests and others, while the gallery overlooking the room was full of ladies and gentlemen.

President Forbes called for order and introduced the Rev. E. M. Noyes, who briefly invoked the blessing of God. R. S. Munger, chairman of the building committee, then made a few remarks, concluding with the presentation of the keys of the building to President Forbes. President Forbes responded in approriate terms. Major D. G. Cash then made the address, at the conclusion of which sounds of applause greeted him, and the exercises of the afternoon were then announced as concluded and the audience dispersed to look through the building, the guests spending the time that way and in viewing the city.

A dispatch was read from C. B. Wright, of Philadelphia, tendering congratulations on the opening of the magnificent building for the Duluth board of trade. Speeches were made by Mayor Moore and others. General Baker, of St. Paul, made the principal address.

The affair was a pronounced success. The board of trade building was decided upon early in the year by a vote of the board and a building committee appointed. Plans were called for, and some eight or ten architects competed. The building finally agreed to accept that of Traphagen, of Duluth. The four Fond du Lac brown stone, was put board, and then bids were called fo plete the building. The contract was awarded to the well know Hennessey Brothers, and Agnew St. Paul and Chicago, the builder Chicago board of trade building Hotel Ryan. The finishing touc now being put on by the carpen painters. The building stands on ner of Superior street and Third west, is of brown stone and bric pressed brick and terra cotta fron stories above the capacious basemen of which is above Superior street. Th is of ornamental design, surmounte tower on the east side.

DECAYING BREAKWATERS.

The destruction of over three hundred feet of the southerly breakwater, off Van Buren street, by the gale of December 5 left the remainder of the structure so weak that every succeeding gale has added to the general wreck. It has been falling to pieces with alarming rapidity ever since, and in its present condition it would be carried out of sight by a heavy ice floe. The entire superstructure was carried away for the distance stated, and it is claimed that the body of the wall has also disappeared in parts for a distance of ten or twelve feet beneath the surface of the water. The loss so far is estimated at about $150,000, and at the present rate of destruction it will soon be double that amount. The breakwater was built during the years of 1879 and 1880, and it extends two thousand feet northeast and southwest, the northermost end being about four hundred and fifty feet from the end of the easterly breakwater. The decay of the superstructure began shortly after it was finished, but it was not noticed until about a year ago, and then the breakwater was in need of a thorough rebuild. But congress failed to make any appropriations for the improvement of Chicago harbor, and the United States engineers here were too much occupied in other directions to do more than write elaborate recommendations for the expenditure of more money. They were fully aware of the rotten condition of the breakwater, and they know that a heavy storm would most likely carry it entirely away. The work of destruction began last summer in a heavy southeast storm, when the seas tore away some of the heavy top timbers, and after every succeeding easterly storm it was noticeable that the damgae was increasing. At the time attention was called to this destruction, but no steps were taken to prevent it, and it is little wonder that the work is about half gone. It has yet to undergo its severest test. A few weeks of freezing weather will result in the formation of icebergs in the lake and on the shore, and the heaviest formation of ice being always on the east shore a northeast or easterly storm of comparatively short duration would send vast fields of icebergs of incalculable weight down upon it, and in its present condition there can be only one result. The work of years, which cost hundreds of thousands of dollars, would be swept away. Even now the seas of every recurring storm are beating down the superstructure at a rate which promises to make "the repair bill" a very large one. The easterly breakwater is but little better than the one which is disappearing. It is very weak and rotten, and it is doubtful if it can withstand the ice in the event of a severe winter. This breakwater is not so directly exposed as the southerly one, however, and it may last till spring without mishap, but several engineers who examined it last summer were of the opinion that it would not stand much of a crush. Taken altogether the sea walls around the basin are in a very dilapidated condition, and promise to become pretty large bugbears if the present congress attempts to correct the mistakes of its predecessor. A great deal of money will have to be expended to make the walls ordinarily safe, while to restore them to their original strength will require an expenditure so vast that some of the other harbor work, which has been contemplated, will, perhaps, have to be neglected altogether. The remarkable decay of these two sea walls, one within a period of five years and the other in about seven years, is a matter of some wonder, and it is hinted that there will be an early investigation of the methods which were resorted to in their construction. When they were planned originally the basin which they would inclose was intended to be a refuge for vessels. It was never a success as a harbor of refuge because vessels could not enter it during storms, and it was only successful as a protection for the property of the Illinois Central Railway Company, and as a sort of yacht bay. Prompt measures will also have to be taken with the outer breakwater, or more properly artificial reef, if the money which has been expended on its construction would be saved.—*Inter-Ocean.*

The advocates of the Erie canal subsidy scheme ought to percive that their cause at the present session of congress is hopeless, if for no other reason because New York is divided upon the question, in relation to which there exist three different opinions in this state. Some think the Erie canal needs no enlarging; others insist that improvements should be made at the expense of the national treasury, and there is a third opinion, strongest and most respectable of all, that the state of New York, having in the past done everything for the Erie canal without federal encouragement and aid, is amply able and in the end will be found willing to do for it in the future whatever is necessary and proper withost resorting to the funds and credit of the nation. The view that national aid for the canal could be obtained for the asking has always been preposterously false.—*Buffalo Courier.*

every ... ping the Misso... pilot stands his regular watch whether boat be going up or down stream, but in ... Missouri river he always runs the same river coming down that he run going up; for instance, if the pilots changed watches on the up stream, at Brown's wood yard, and the pilot coming on runs during the six hours, up to Smith's Landing, then on his way down, regardless of the hour, he would take the wheel at Smith's Landing, and run her down to Brown's woodyard, and so on; every piece of river that was run going up stream by the pilot, would also be run by him on the way down. From St. Louis to Fort Benton is over three thousand miles yet the pilots on a Fort Benton tri... woul... retain in their minds the very s... ...e every watch was changed duri... run. The consequence of ... going down stream meant v... for the pilots, for a six hours' ... would sometimes be made in ... that time on the down stream. ... if the pilot "stuck 'er" why, h... 'er off." In other rivers th... watches regularly, stuck or no s... sink a Missouri river steamer wa... uncommon occurrence, some pilots ... gaining a reputation for their skill in ... feature of steamboating.

To see a steamer with her guards and wheel house torn away was not considered of any consequence whatever. Low water was the time when the boys were kept busy. Take a three boiler boat, for instance, loaded to about three feet, and only forty inches in the river. A steamer thus loaded would have to feel her way. Some pilots would touch a sand bar as skillfully and lightly as a billiard player manipulates the billiard balls, now going ahead under a slow bell, now stopping one engine, or perhaps "giving it a turn back;" now pulling it to a deep bend, only to "open 'er out" for a few moments. The pilot plays around the bar as if the steamboat were a plaything, and at last he finds a hole, and placing the boat's "nose" in the "best water" tries to force her through, and failing, he "backs 'er out" and tries another place. Or, if the chances seem to be wholly against getting over, then down goes the yawl and they "sound the place." Some pilots will play around a bar and never stick if there is water enough anywhere to get over, while another pilot will "stick 'er" the first thing. When a boat sticks the first thing to be done is to sound around her, and find where the best water is, in order that they may know which way to spar her, and it falls to the mate to spar her off, and some of them were, indeed, famous "sparers."

The spars always stand, one on each side of the steamer's head, and when limber lean slightly forward. When ready to spar the heel of the spar is hauled forward and let go, in the river, and when in the proper position turns are taken around the capstan and the huge blocks hauled taut.

THE ERIE CANAL.

The question of increasing the carrying capacity of the Erie Canal was discussed at a meeting of canal boatmen in New York City. Resolutions were adopted declaring that it was the duty of the State to improve the Erie Canal without waiting for aid from the general goverment, denouncing the extortions levied on canal commerce at New York and Buffalo in the shape of excessive elevator wharfage and insurance charges, which placed the Erie Canal at a vast disadvatage with all competitors; and calling on the Legislature to enact laws to suppress these excessive charges. Other resolutions were adopted uring upon the Legislature the necessity of immediately improving canals by appropriating money to strengthen the locks by raising the banks and thus deepening the canal, and by prohibiting, by law, the practice of certain railroads in this State in discrimating against shippers who use the canals of the State, by charging such shippers higher rates for freight that others.

CHANGE IN THE CODE.

WASHINGTON, D. C., January 7, 1886.

To the Editor of the Marine Record.

This office is informed by the British board of trade that there has been the following addition to the international code of signals, viz: B, V. C. H. Townsville, (Queensland). Very respectfully,

JARVIS PATTEN, Commissioner.

THE OLD MODEL BOAT.

BOSTON, December 26, 1885.

To the Editor of the Marine Record:

Dear Sir: My son has returned from the boat. She has now reached and passed the first canal (the Raritan) and will now have shelter until she has passed the dismal swamp canal, and they do not need a navigator. His report of the boat is a good one. He was at sea 90 hours, and thinks the boat sailed not far from 500 miles. He had much head wind, and lost much way running into various ports each night. He reports that no water or wave broke over any part of the boat, and no spray flew over or on her. I have been waiting for some kind of a tangible development of the principles in this boat, and would have been glad to have had a more perfected vessel, one large enough to have did defiance to the powers of the ocean; but this was my only opportunity, and I took it. This boat was far too small to venture into the large waves of the ocean, and my son says that he did not think it prudent to go round Cape Cod in the height of a gale with her, she being only 30 feet long, and therefore made port three times inside of the cape. But the day he went round the cape two vessels were wrecked on or near it. This old boat has now made a mark which cannot be wiped out, and I now intend to take steps for the manufacture of such boats. Your city is one of the best localities for such a factory on the Continent. I use in building these composite boats Michigan pine and Ohio oak. These are the best materials in the world for such work, and probably can be had cheaply at your city. I use the pine 1-2 inch think, and it costs here $40.00 per M feet. No doubt but it can be had of that thickness at your place for $20.00 per M feet. I pay here for Ohio oak $50,00 per M feet, but no doubt it can be had at your place for $30.00 at the highest. Labor here costs three dollars per day. I know that I can get good men at the west for two dollars per day. Ship carpenters are of no use on the kind of work in these boats; joiners are the only men to build them. But a majority of the work is done by ordinary wood working machinery. I now desire to get up a company such as the Herishoffs at Bristol. You place is a far better place than Bristol, and if a company can be got up it will add largely to the industry of your city. If such a company can be formed I will give it an exclusive right to my patents, only reserving a small royalty to take care of me in my old age. Also I will for a time come and superintend the building and transmit to the company all necessary information for a moderate salary.

Can such a company be got up at your place? It will not require a large amount as you no doubt have plaining mills and necessary wood working machinery in abundance at your locality. It does not require specially prepared materials for this kind of boat or vessel, as the ordinary marketable lumber is just what I use. Therefore it is not necessary to carry stock, and contracts can be met in a short time. In fact, I would contract to come to your place and build the boat I mention in my last letter to you in 90 days. The common sense principles of safety now made manifest by my old boat will if followed up soon cause them to be the only boats allowed by law for pleasure yachts or for the carrying of passengers. In some of my publications I have said that the principles as now applied in the form of vessels were only fair-weather ones. Does not every gale prove the truth of that assertion? Have any of them anything or part in their form to protect them from the action of the waves? They have not. Their buoyancy cannot aid them, and as soon as the waves rise their struggle with them commences. They roll and tumble, the waves break over them, wash their men overboard, sweep off their superstructures, and in the end tear them to pieces. This little boat has made her run at sea of nearly 500 miles in this inclement season of the year, and one of the worst times of gales that has been known for twenty years; and her captain reports that no waves or spray has been on her, and that she has been under control all of the time and is as "safe as safe can be." Why is this so? Wherein does she differ from other vessels? She has her ploughs to cut the waves and hold her firm. She has her buoyant clothing (which other vessels have not) to keep the waves off and away from her and her great stability to hold steady. In fact, she has in her the true principles of safety. As a burdensome vessel she is superior to any other ever built. This also has been fully proved by the little one. Her displacement to her water line at its extreme was but 7½, tons, that was all that she was intended to carry, and would just load her carrying buoyancy. Yet they took on a load of nearly eleven tons at least three tons too much, as it encroached upon her buoyant clothing, which is not intended for displacement and is in all respects different from her displacement buoyancy. But, with all this disadvantage, she got through safe and dry all the time she was on the way.

If a company is formed, its business will be at the start like Herishoff's in building small crafts. Their aim has been to get great smooth water speed. As yet they have built nothing useful or which can be safe and have great speed in rough water. The aim of this new company must be the opposite to theirs; it must be to have perfect safety in the rough times, and at such times the greatest speed possible to attain; and, with the principles of the old model in their perfection, as I now have them, they can fill the promise. I again ask, can there be a company got up at your place? If a company can be got up at your place, I will come there and bring with me a working model and sketches, so that explanations can be more readily made; but I use neither in building. Yours truly,

JOSEPH W. NORCROSS.

No. 78 Saratoga street, East Boston, Mass.

FRANKFORT MARINE REVIEW FOR 1885.

FRANKFORT, MICH., January 7.

January 7. Propeller George D. Sanford, jr., arrived from Manistee. Harbor full of slush and ice. Tug Jessie Slyfield tried to go to fishing grounds, but was unable to force a passage through the ice.

February 8. Tug Slyfield lifted nets in Lake Michigan. Solid ice fields north of Point Betsy.

March 4. Propeller Sanford had her colors flying in honor of Cleveland and Hendricks.

April 15. Pierhead light resumed. A sawed channel let tug Slyfield out.

April 16. Propeller I. M. Weston arrived at noon from Manistee; the first of the season. Propeller Sanford was sawed clear by a force of men on the ice, and made a short trip out into the lake.

April 21. Tug Hannah Sullivan arrived from St. Joseph, to fish. The ice was all gone as far as South Manitou island, but the passage there was still checked with ice.

April 22. The steambarge Joys sought shelter; first west shore arrival.

April 23. Tug D. P. Hill goes in commission.

April 24. State fish hatcheries deposited 2,000,000 white fish in Lake Michigan, here.

April 26. Schooner C. Amsden, the first sail arrival from Chicago.

April 29. Schooner Mishicott arrived from Manitowoc with first supplies. Point Betsy light resumed.

May 1. Point Betsylife saving crew, under Captain Matthews, resumed duty.

May 4. The first steambarge from below passed at 9 a. m., also schooner John Bauer, bound for South Manitou island.

May 5. Propeller Lawrence made her appearance and departed for the Straits, also propeller Lou A. Cummings.

May 6. Propeller Thomas Friant which was lying in port awaiting a chance to go to Charlevoix received a telegram that the ice was moving away, and there was no trouble to get in. She departed. The first grain-laden lake schooner passed down at dusk.

May 12. The lower lake fleet from below began to pass to-day.

May 13. The steamship Gratwick with consorts Freyer and Marvin, arrived from Tonawanda.

May 14. British schooner Sylvester Neelon arrived to load lumber for Hamilton, Ont. Tug St. Mary arrived from Chicago to engage in towing.

May 18. Forest fires raging. Schooner G. Barber went ashore at Leeland, and tug Hall went to the rescue. Propeller I. M. Weston picked up the body of an unknown man near Herring creek. It was thought to be a sailor lost last fall; buried by the authorities.

June 11. United States steamer Dahlia left supplies for Pierhead light.

June 15. Terrific squall in the morning capsized a fish boat, drowning Owen Rovig and Ingbret. Tug L. Q. Rawson caught fire in hold while at fish grounds, but was extinguished.

June 17. Wrecking tug Leviathan was in port, but abandoned the job of raising the sunken propeller City of Boston.

June 22. New ferry tug Cynthia entered in commission.

June 28. Wrecking schooner Experiment, with divers, worked on the sunken wreck of the schooner Flying Mist.

July 16. Stevedores strike and gained their point.

July 17. Schooner Racine, built in 1884, was in our harbor.

July 23. Sloop yachts Harry Burke and Los Companas were in port. They had colors at half mast in honor of U. S. Grant.

August 5. River steamer Laura May, which left Pittsburg June 15, was in port. She came via. the Ohio river, thence Mississippi to Illinois canal. She was en route for Florida.

August 19. Captain and crew of the foundered steamer Jarvis Lord arrived here.

September 14. Tug John Smith broke down and was picked up by the propeller Philadelphia and towed here. Owners of the schooner Souvenir and scow German traded vessels.

September 21. United States steamer Warrington was in port. Tug Hall arrived with leaking schooner Surprise from Charlevoix, and towed her to Milwaukee.

October 8. North gale. Large fleet sheltered. Fish boat capsized and drowned John Van Haake and Charles Belogne.

October 9. United States revenue cutter Andrew Johnson was in port.

October 11. Tug Andrew Gale araived from Muskegon, to fish. Tug Alice M. Campbell, of Duluth, was purchased by Captain Penfold.

November 15. Wreckage of schooner L. A. Burton was washed ashore at Point Betsy.

November 19. Scow Helen narrowly escaped going ashore at Burnham pier, but was rescued by tug Hall.

September 30. Point Betsy life station closed. Schooner Cascade, a late bird, sought shelter.

December 1. Tug St. Mary destroyed by fire at Glen Haven.

December 4. Propeller Lawrence left for Chicago, she breaks down and makes Ludington harbor. Schooner Amsden lumber laden for Chicago; she ices up looses deck load, cabin and sails and was picked up by tug at Michigan City. Schooner Cascade from Traverse Bay, after many trials, reached Chicago on Christmas.

December 6. Schooner Sea Gem arrives iced up from South Maniton.

December 10. Schooner Sea Gem sailed for Milwaukee, last sail departure.

December 8. Steambarge Geo. Burnham arrives.

December 11. Point Betsy light shut down.

December 13. Tug Hall tows schooner Dan Maybee, Eagle Wing, Melvina from Charlevoix abreast of Point Betsy and they sail for the west shore. Propeller Weston left on her last trip.

December 16. Propeller Burnham departs for Milwaukee.

December 17. Tug Hannah Sullivan sails for St. Joseph, tug Gale for Muskegon.

December 26. Three vessels are seen north of Point Betsy; a large steambarge, double smoke stack, three mast, passed bound south.

December 28. Steamer Geo. Sanford makes a trip to Manistee and return. Pier head light shut down.

CHARLES BURMEISTER.

The Treasury Department has for issue to masters of vessels a neat little book entitled "Handbook for Ships' Medicine Chest." It is full of valuable information for the use of ship masters in case of sickness. Copies can be had on application to United States Shipping Commissioner, 187 Cherry street, New York.

OFFICIAL NUMBERS AND SIGNAL LETTERS.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION, WASHINGTON, Jan. 4, 1886.

To the Editor of the Marine Record:

Following is a list of merchant vessels of the United States to which official numbers and signal letters were assigned by the Bureau of Navigation, Treasury Department, during the week ended Jan 2, 1886:

Official Number.	Signal Letters.	Rig.	Name of Vessel.	Tonnage. Gross.	Net.	Home Port.
			SAIL VESSELS.			
106,396	.....	Sc.	Alua and Hettie,	10 20	9.75	Baltimore, Md.
136,346	.....	Sc.	Nettie,	9.69	6 61	Robbinstown, Me.
			STEAM VESSELS.			
126,333	.....	St. p.	City of Cleveland,	1923 95	1324.49	Detroit, Mich.
157,170	.....	St. p.	Delta,	86.84	48.95	Wilmington, N. C.
135,870	.....	St. p.	Economy,	33.05	27.87	Tacoma, Wash.
76,608	.....	St. s.	Jeremiah Smith,	113.38	66.68	New Haven, Conn.

JARVIS PATTEN, Commissioner of Navigation.

LOUIS B. PRESLEY. GEO. G. ARTHUR. THOMAS AXWORTHY

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Following is the time in effect June 28, 1885, and until further notice:

EASTWARD.	Arrive.	Depart.
Buffalo Accommodation	*10 40 A M	*10 45 A M
Chicago Accommodation	*9 02 P M	
Local Freight	*11 45 A M	*12 15 P M
WESTWARD.	Arrive	Depart.
Chicago Accommodation		*6 45 A M
Fostoria Accommodation	*4 46 P M	*4 51 P M
Local Freight	*12 20 P M	*12 30 P M

ROCKY RIVER ACCOMMODATION.

Depart—*7:45 a. m., *1:35 p. m.

EUCLID ACCOMMODATION.

Depart—*6 24 a. m., *9:10 a. m,. *5:05 p. m.

*Daily except Sunday.

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LEWIS WILLIAMS, General Manager. Cleveland, O.

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Commencing Sunday, Nov. 29 1885, at 12 o'clock noon the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper.

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*2 55 A M	*3 05 A M
No 8, N Y, B & A Express	*8 25 A M	*8 50 A M
No 26, Elyria Accommodation	†7 45 A M	
No 24, Buffalo Ac'm via Sandusky	†10 30 A M	†10 50 A M
No 24, Toledo Accom via Norwalk	†10 30 A M	†10 50 A M
No 12, N Y & B Fast Express	2 10 P M	*2 45 P M
No. 14, Special New York Ex		3 00 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 40 P M	
No 26, Conneaut Accommodation	†4 25 P M	

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*12 15 A M	*12 25 A M
No 23, Mich Express via Sandusky	*2 15 A M	
No 3, Chicago Express via "	‡6 00 A M	6 30 A M
No 25, Mich Accom Norwalk		†6 30 A M
No 21, Toledo Ex via Norwalk	†12 50 P M	†3 30 P M
No 5, St Louis Ex via Sandusky	*10 50 A M	*11 00 A M
No 9, Chi Pac Ex via Norwalk	6 15 P M	*6 45 P M
No 31, Elyria ac to Elyria only		†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	

Sunday train for Nottingham—Depart 8:15 a. m. and 1:45 p. m.; returning, leave Nottingham at 8:50 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

A local Cleveland and New York sleeper daily on No. 12, leaving Cleveland at 2.45 p. m.; arrive Grand Central depot, New York, 10 30 a. m.

For full information as to trains and connections apply at the Union ticket office, corner Bank and Superior streets, under Mercantile Bank.

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D. JAY COLVER, Passenger Agent.

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Marine Record.

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CLEVELAND, O.—G. F. Bowman, corner of Pearl and Detroit Streets.

CHICAGO, ILL.—Joseph Gray, 9 West Randolph Street.

BUFFALO, N. Y.—A. C. Brideson, Michigan Swing Bridge.

Also, Miss McCabe, Elk Street, near Ohio.

DULUTH, MINN.—C. F. Johnson, 117 West Superior Street.

ESCANABA, MICH.—Wm. Godley.

Subscribers and others are respectfully invited to use the columns of the MARINE RECORD for the discussion of pertinent topics.

ADVERTISING RATES MADE KNOWN ON APPLICATION.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, OHIO, THURSDAY, JANUARY 14.

LOCAL TAXATION.

Under the promises of busy enterprise for lake navigation during the season of 1886, which are apparent on all sides, ship owners have taken courage to enter contract for the building of good tonnage that will add materially to the lake fleet and assist largely in carrying forward the business of the country. With this view and the knowledge that ship property as steadily depreciates as real estate property appreciates, it is but natural that the subject of local taxation should be an important factor to enter into the computation of owners. Floating property is directly under the charge of, and is governed by, the government, and government should direct its taxation. The manner of collecting taxes on shipping is different in different states and leads to complaints on the part of ship owners.

It must be admitted, says Jarvis Patten, commissioner of navigation, that to pay taxes on a high valuation of ship property in a period of depression, when ships are losing money instead of making it, is burdensome and discouraging, and it is logically argued that at such times there should be a general abatement by the assessors. Shipping constitutes a class of property that should have partial if not entire exemption from local taxation. It is not sufficiently considered that the ship owners imperil the money they put into shipping more than the investor in landed property, and by putting their fortunes at hazard on the turbulent waters they benefit the community at large much more than do the investors in real estate. Many vessels have been known to run from year to year, defray all their earnings from port to port without returning any profit to their owners. The aggregate earnings of shipping at such times, amounting to a large sum, go to the benefit of the public. But local taxation is unjust to the American shipowner in a double sense, as he has to bear a burden from which his competitors are exempted. As we are at present living under the protection regime as regards manufactures and all other industries, if there is any benefit in protection to those industries, why would it not be but right and proper that the same regard be extended to the ship owners. The system of taxing ship property in free trade England is protective in character compared with that adopted by most of the states. In that country vessels are taxed upon their net earnings, generally at the rate of five pence to the pound sterling, or 2½ per cent, a system that should obtain in this country. This plan is based upon reasonable grounds and is very easily carried into practice and such a course would have the effect of multiplying shipping instead of driving vessel owners to the wall.

On the lakes tax is levied on shipping as it is on other personal property. Our ship owners are in constant competition with Canadian vessels, which are not taxed. The policy of Canada, like that of England, is one of liberalty and encouragement toward the shipping interest. No tax whatever is levied upon vessels either by national or municipal authorities. In contrast to the Canadian policy of permitting shipping to go untaxed, let us enumerate the burdens of this character that are borne by a vessel of, say, 600 tons, valued at $30,000, (and it is the custom of the assessor to look up a Lloyds register upon which to base his calculation) that hails from the American shore of the lakes.

State and municipal, tax varies in different states, as has been said, from 1 to 2 per cent, which is assessed on this valuation, amounting on an average to $450 annually. But the season of navigation on the lakes is only nine months in duration, hence we observe that the charges borne by a schooner of 600 tons is $90 per month, reckoned for the period she is at work, or $600 per year. This sum, or one in proportion for a vessel of different size, must be paid by a vessel navigating the lakes if documented on the United States side, while on the same vessel owned in Canada not a dollar is exacted.

In further illustration of this matter, and the effect of taxes levied by the respective governments on the opposite shores of the lakes, let it be supposed these two vessels, one American and one Canadian, to be running in the grain trade and to carry about 30,000 bushels. The number of round trips, not reckoning unnecessary delay, would average twelve during the season, each vessel carrying 360,000 bushels. It follows that the Canadian vessel has an advantage of about 0.125 cent per bushel, or nearly five cents per ton.

Several of our state legislatures, appreciating these drawbacks to our shipping interest and the manifest injustice of taxing ship property, have recently passed laws exempting it from local taxation. But the system of taxation by the several states is not equable. While in most of the states ship property is taxed as other personal property, bearing a rate varying from 1 to 3 per cent, in several of them it is exempted, or limited to the coasting vessels, or taxed on the income only. The result is that there is a gradual drift of tonnage from states where it is heavily taxed to the states where it is altogether exempted, or where it is lightly taxed.

Commissioner Patten, by an admirable system if research, has compiled the chief features of the laws of several states bearing on this question, the results showing that in the state of Delaware ship preperty enjoys perfect immunity from taxation for state and municipal purposes, and that in consequence of this liberality in the policy of the state much of the New York tonnage has gone to Delaware. In Massachusetts the legistature passed a law (1881) exempting vessels engaged in the foreign trade from taxation. It was argued that American vessels could not be expected to compete successfully on the high seas with those of Great Britain so long as the former were taxed on their value while the letter only paid tax on their earnings. Moreover it was claimed that the exemption of such property from taxes in the state would bring shipping capital to Massachusetts from other states, a view that has been realized to a great extent. Since the law went into effect, May 1, 1882 the number of towns owning vessels has been increased from twenty-three to thirty-four, and the value of vessel property has increased over a million dollars. New Hampshire in 1879 passed a law exempting vessels in the foreign trade from taxation excepting on their income, which is taxed as stock in trade, but coasting vessels and all other classes of floating property are taxed as personal estate. In Connecticut vessel property is taxed as personal property at an estimated value. In New York ship property is taxed by state law with the exception of tonnage engaged in ocean commerce between foreign ports and ports of the United States. The revenue laws of the state of Pennsylvania do not include ship property in the skedule as subject to taxation for either state, county or municipal purposes. There are no local or state laws which infringe upon owners of vessels with the exception of compulsory pilotage, and harbor master and port warden fees. Other states mentioned by Commissioner Patten have specific methods of taxing tonnage the lack of uniformity in which creates an element of disturbance to the commercial balance between the states; therefore, as the constitution provides that Congress shall have power to lay and collect taxes, duties, etc., but that all such taxes shall be uniform, there is no tangible reason why the taxing of tonnage in the several states should not be taken from the local or state governments and relegated to Congress. As it has been said that the present Congress is ambitious to solve the question of relief to shipping, a measure to exempt vessel property from local taxation might profitably command attention.

Section 10, article I, of the constitution provides that "Congress shall have power to lay and collect taxes, duties, imposts and excises, but that all such taxes shall be uniform throughout the United States."

This section, with the clause which gives "Congress power to regulate commerce with foreign nations and among the several states" would seem to indicate that the taxation of ship property is one of the prerogatives of the national legislature, and one which Congress might assume to the advantage of all interested, and to the relief of the several states, which under the various conflicting systems that are in vogue are in danger of introducing a spirit of antagonism among themselves.

LIMITATION OF LIABILITY.

The hearing of the case in admiralty entitled "In the matter of the petition of John W. Moore and others for limitation of liability as owners of the barge H. B. Tuttle," was begun before Judge Welker yesterday morning. The proceeding was instituted under and by virtue of section 4283 to 4286, both inclusive, of the Revised Statutes of the United States, and of the 54 h to 58th, both inclusive, admiralty rules of the supreme court of the United States. Section 4283 provides that the owner or owners of any vessel shall not be liable for any embezzlement, loss, or destruction by any person, of any property, goods or merchandise, shipped or put on board of such vessel, or for any loss, damage or injury by collision, or for any act, matter or thing, loss, damage or forfeiture done, occasioned or incurred, without the priority or knowledge of such owner or owners, in excess of the amount of the value of the interest of such owner or owners in such vessel, and her freight then pending; and the succeeding statutes and rules provide the method or manner in which parties interested may proceed in order to obtain the benefit of the law on this subject. The facts in the case above mentioned are substantially as follows: The Silver Islet Consolidated Mining and Land Company, a corporation existing under the laws of the state of New York, on the 26th day of October, 1883, chartered the steambarge H. B. Tuttle to take a cargo of coal from Sandusky, Ohio, to Silver Islet, Ontario, a place located on the north shore of Lake Superior, where the company operated a mine. One of the main conditions of the charter was that in consideration of the company paying an additional amount of freight, to-wit: twenty-five cents per ton, the said cargo of coal was to be delivered to them at Silver Islet before the close of navigation of that year. In pursuance of this contract the barge left Sandusky on the 12th of November, 1883, with a cargo of coal, but was unable to get any farther than L'Anse, Michigan, because of the perils of navigation and the inclemency of the weather, which resulted in the closing of navigation, and she was compelled to lay up at that point all winter. The cargo was subsequently delivered to the company on the 15th of May, 1884. The company claims damages in the sum of $80,700, because of their having to shut down their mines about January 1, 1884, for lack of coal to run their necessary machinery, and further because the company has been unable for the same reason to keep the mines free from water, they having filled with water, rendering it impossible to operate them.

Judge Welker on the 29th of May, 1884, granted an injunction, restraining the company and all others from prosecuting any suit or suits against the barge or its owners upon any claim arising out of the non-performance of the contract above mentioned, and the property has been appraised in accordance with the rules of the supreme court, at the sum of $26,031.75.

The matter is now being heard upon the question of whether the barge was at fault in not performing the conditions of the charter above mentioned. H. D. Goulder, Esq., appears for the owners of the barge, and Messrs. Sherman and Hoyt, of this city, and James H. Brewster, of Detroit, for the Mining Company.

SENATOR FRYE has introduced a bill for the relief of the American merchant marine. It repeals the statutes requiring the payment of fees for marine documents, certificates of inspection, etc, and provides that the collectors, whose duty it is to furnish these papers, shall be paid by the United States. The liability limitation clause of the last shipping act is extended to vessels in interior waters and to those employed in the coastwise trade. The provision of the law of 1883, authorizing a drawback on bituminous coal, the benefits of which, under the rulings of the Treasury, are enjoyed by foreign vessels, are limited by the bill to American vessels. The bill also extends the provisions of the statutes relating to the free admission of material entering into the construction or used in the repair of American vessels so as to include material used in the construction or repair of vessels engaged in the fisheries and whaling.

THE DEATH ROLL.

In continuation of our annual report we append a record of the names of those who have passed away during the year 1885, which includes all those who have been associated with lake commerce in times past. In more than one point of view it is of equal importance for future reference as any other part of the season's record. As in other years we regret to record the loss of many unknown whose friends will probably never know what became of them. The list foots up 155 deaths from all causes, of which 44 were from natural causes, 108 accidental, 2 suicides, and 1 burned to death; an increase over 1884 of 10. The greatest loss was that by the steamer Algoma, wrecked on Lake Superior, which is stated to be 45, although the prevailing opinion was that it exceeded that number:

NATURAL CAUSES

January 30. Captain Henry Venn, died at Detroit, aged 47.

January 30. Captain Smith, of steamer Prince Arthur, died at Montreal.

February 13. Captain Henry Carr, died of erysipelas, at Buffalo, aged 50.

February 13. Captain L. T. Edson died at Chicago.

February 26. Edward, marine engineer, died at Buffalo, aged 79.

February 29. Captain W. T. Pavey, died of pneumonia, at New Orleans, aged 60.

February 29. Captain John R. Doak, died at Ahnapee, Wis.

March 20. Lewis F. Leopold, steamboat owner, of apoplexy, at Chicago, aged 66.

March 20. Captain S. A. Bennett, of paralysis, at East Evans.

April 17. John Farlan, went south and died there.

April 19. Captain Robert Mulligan died at Oswego.

April 19. Samuel Nesbitt, marine engineer, died at Buffalo.

April 23. Captain James Leitch died at Marine City.

May 1. Captain Charles Perry died at Toronto, aged 58.

May 3'. Myron Henderson, marine engineer, died at Chicago, aged 43.

June 5. Captain John Ball died at Unionville, O., aged 73 He was the first master of the propeller Fountain City.

June 10. Captain T. J. Duddleson, retired, died at Trenton, Mich, aged 59.

June 18. Captain Fred S. Miller, fifty years on the lakes, died at Buffalo, aged 74.

June 18. Captain Crysler, steamboat man in early days, and popularly known, died at Rochester, N. Y.

June 26. Captain N. Gebhard, many years master and owner of steamers, died, aged 65.

June 26. John Tompkins, marine engineer, died at Wyandotte, aged 50.

June 29. Captain Hugh McEachern, died at Cleveland, aged 56.

July 8. Hugh Rounds, mate of the steamer Alaska, died at Detroit.

August 2. Captain R. B. Montague, late of propeller St. Paul, and formerly of Huron, O., died at Duluth, aged 56.

August 6 Captain John J. Morley, many years a popular steamboat master on Lake Ontario, died at Rochester, aged 73.

August 24. Clarence Granger, seaman, died at hospital in Detroit.

September 14. A. E. Goodrich, steamboat owner, died at Chicago.

September 14. Captain James Doyle died of old age at Milwaukee, aged 80.

September 25. Captain Thomas S. Faulkner died at Cleveland, aged 70.

September 29. Captain Arthur Edwards, retired many years, died at Trenton, aged 80.

October 18. Captain Peter Brown died at Cleveland from injuries received on steambarge Packer.

October 18. Captain W. B. Millard died suddenly at Bay City.

November 2. Captain Merwin Thompson died at Fairport, O., aged 45.

November 2. Captain Thomas Kennedy, an old pioneer, died at Saginaw, aged 75.

November 27. Captain Alva Bradley, steamboat owner, popularly and widely known, died at Cleveland, aged 71.

November 27. Captain William Rennie died at Chicago, aged 58.

November 30. Captain Alfred Davis, lake and ocean navigator, and much respected, died at Cleveland, aged 71.

December 12. Captain James Carney died suddenly at Detroit, aged 65.

December 12. Thomas C. Robinson, late steamboat purser on Lake Superior steamers, died at Detroit, aged 65.

December 12. William Henry Brown (colered), died from fright, on propeller Oconto.

December 12. Captain James Regan, an old veteran, died at Watertown, Wis., aged 84.

December 21. Abijah Joy, marine engineer, retired, died at Detroit, aged 71.

December 22. Captain G. W. Berriman, retired, died at Chicago, aged 57.

December 29. George Shaver, fireman, died suddenly, on steamer Algoma, Straits, aged 34.

May 1. Wm. Graze, drowned at Chicago.

May 9. Captain J. W. Weeks suicided by hanging in the hold of the barge C. N. Johnson at Sand Beach, aged 52.

May 16. Captain Ben Van Eystein, retired, suicided at Chicago.

May 19. Captain Dan Rogers, burned in his residence at Buffalo.

ACCIDENTAL.

January 6. Captain Harman Oloff, killed accidentally at Waso, Wis.

March 12. Joel Odette, engineer, found dead on railroad track near Detroit, aged 55.

April 17. John Wright, wheelsman, drowned from steamer City of Mackinac, at Detroit, aged 34.

May 28. John Kuntz, drowned from the schooner Mary Lyon in Lake Michigan.

May 31. Chas. Johnson, fireman, drowned from steamer Cormorant, Lake Superior.

June 7. Thomas C'Oonnor, watchman, from propeller Sanilac, Lake Huron.

June 10. George Burnham, from a boat in Mullett lake.

July 1. Peter Peterson, mate, from barge Monitor at Toledo.

July 8. Wilbur Warner, wheelsman, drowned at Toledo, aged 28.

August 6. John McMullan killed accidentally on board the steambarge V. Swain at Clevelaud.

August 10. Captain J. Montanbank, drowned from barge Indian, on Lake Superior,

August 15. Wm. Gibson and Ed Gallagher perished in a boat at Charlevoix, Lake Michigan.

August 24. Captain J.T.Jacobson,drowned in Lake Benton.

August 28, Abraham Anderson, drowned from schooner E. R. Beal, Lake Michigan.

August 29. Grant Carr and Martin Johnson, while wrestling on board propeller Araxes, fell overboard and drowned at Port Huron.

September 6. John Ward, fatally scalded on steambarge Cleveland, on Lake Erie, aged 22.

September 8. Benj. Castenquay, drowned from a boat in Saginaw Bay, aged 30.

September 9. Mrs. McPherson, cook, from schooner Erie Wave, Lake Erie. Edward Strange, passenger, drowned same time.

September 9. Captain Paulson, his son George, Martin Pierson, Charles Ingerbertson and one unknown seaman lost with the schooner Advance in Lake Michigan.

September 9. Edward Finney, fireman, lost from United States steamer Michigan, in Lake Michigan.

September 9. John Swails, seaman, from schooner Swails, in Lake Michigan, aged 26.

September 9. Vincent De Luge, from tug O. B. Green, in Lake Michigan.

September 9 Julius Mathieson, Fred Hanson, Charles Mathieson and Edward Mathieson, lost with scow Milton in Lake Michigan.

September 18. Cornelius Howell, cook, from propeller Oconto, at Detroit.

September 22. Captain Wm. Jones, from a small boat at Racine.

October 6. James Linn, seaman, from the schooner Knapp in Lake Erie.

October 8. John Van Hoak and Charles Belogna,from a small boat in Lake Michigan,

October 13. Patrick Hughes, mate, from schooner F. Campbell, Lake Michigan.

October 13. Hector McFee, from schooner Wawanosh, Lake Erie.

October 18. Thos. Hickey, first engineer, and Thos. Rooney, second engineer, fatally scalded on board propeller Myles, Duluth.

October 20. Wm. Kirkby, fatally injured on tug Admiral Porter, Port Huron.

October 20. Wm. Ward, Jas. Riley, Wm. Miller, and Walter Fisher, killed by explosion of tug Frank Moffat, St. Clair river.

October 30. Mrs.Eliza Tucklbey, drowned from schooner G. B. Sloan at Oswego.

November 2. John Bell, seaman, from schooner F. Campbell, Lake Huron.

November 9. The following were lost with the steamer Algoma,on Lake Superior: Mrs. E. Dudgeon and two children, Douglass Buchanan, Chas. Buchanan, Edward Frost, wife and child, Wm. Higgins, Louis Zimmerman, G. E. Emerson, Wm. Mulligan. Geo. Pettigrew, first engineer; Alex. McDermott, second engineer; Alex. McKenzie, purser; Chas. Taylor, steward; Jones, second steward; H. Mortimer and H. Vanson, wheelsmen; J. Malone, porter; H. Gill, John Scott, L. Rooke, C. Murray, and Balantine Bates,deck hands; J. Loft, F. Brooks, W. Stokes, cooks; Geo. Thompson, newsboy; Thos. McKinney, W. Henderson, H. McClinton, Thomas Snelling. J. McKinzie, H. Emerson, F. Knight, waiters; A. Mitchell, W. Tanger, W. Gibson, J. Brown, J. Waystaff, firemen.

November 12. Adolph Sharp, seaman, fatally injured on board the schooner Speed, on Lake Ontario.

November 12. Unknown seaman, drowned from schooner Imperial, Lake Huron.

November 19. Captain Robert Dunnigan, drowned from a pier at Toledo.

November 27. F. Fringleson, drowned from schooner R. B. King, Muskegon.

November 27. Joseph Smith, fatally injured on schooner Dows, Duluth.

November 27. Patrick Wylan, drowned at Duluth.

December 7. Captain Aaron Holliday, Bent Smith, Andrew Smith, James Rogers, Stephen Levin, Edward Downey, John Davidson, seamen, and J. E. Stickney, cook, lost with schooner Orphan Boy, in Lake Michigan.

MARINE ENGINEERS' CONVENTION.

BUFFALO, January 13.

Special Correspondence to the Marine Record.

The National Marine Engineers' Beneficial Association opened in its eleventh annual session at Temperance Hall, Buffalo, Tuesday, at 10:30 a. m., with the following officers and representatives present:

National President, Andrew Ritter, Chicago.

National Vice President, H. G. Payne, Buffalo.

National Secretary, J. H. Harris, St. Louis.

Representatives, R. E. Walker, J. N. Gregory, Buffalo; John Thompson, Quincy Miller, Cleveland; F. W. Whitehouse, Chicago; J. H. Galway, J. H. Reid, Detroit; L. H. Vogt, John Mitchell, Baltimore; Joseph Brooks, Philadelphia; Wm. E. Elliott, Milwaukee; John A. Springer, Bay City; John E. Jordan, Erie; J. H. Fitzgerald, Port Huron; Allen McKee,Manistee; E. P. Watson, New York; W. E. Russell, Pittsburgh.

The morning session was devoted to hearing reports, and the appointing of the several committees. On Wednesday the association will hold a memorial service in honor of Garrett Douw, past national president, whose death occurred in June last.

The association will be given a banquet by No. 1, of Buffalo, on Thursday evening.

ORANGE BLOSSOMS.

An interesting social affair occurred on Buckland avenue last Thursday morning at 9 o'clock. The occasion was the marriage of Mr. Erastus R. Goodrich, foreman of the Cleveland Stove Company, Cleveland, and Mrs. Elva V. Yeaman, of this city. The officiating clergyman was Rev.J. I. Swander, D. D., pastor of the Reformed church of Fremont. The wedding took place at the residence of George Nolan, and was attended by a few select friends of the bride. After breakfast, which was served at 10 o'clock, the happy pair departed for their future home in the Forest City.

FREMONT MESSENGER.

[*Around the Lakes Continued from 1st Page.*]

SANDUSKY.

Special to the Marine Record.

The worst storm of the season visited Sandusky last week Saturday. A wild, blustering day during which a considerable quantity of snow fill, was followed by a night of great rigor, and Sunday contributed materially to the stock of cold, so that the ice in the bay and lake, which had become honey-combed and broken by the soft, mild weather of a few days previous, again became one solid mass.

The heavy winds, thirty-two miles an hour, that prevailed during the blizzard, had the effect of raising the water in the bay to a point higher than it has before been for sixteen years, and when they subsided and the water receded, an icebelt was left along the harbor front several feet above its ordinary level.

A number of vessels were slightly chafed by the ice, but aside from this no damage was done the shipping.

The steamer American Eagle, which seldom succumbs to either ice or storm, is at present ice bound, being unable to leave this port in consequence of the storm. The little vessel has enjoyed a thriving business since navigation closed to other craft, between Sandusky and the islands. It was the intention of the owners to lay her up some time ago for the purpose of making repairs to her machinery, but the immense passenger and freight traffic of which she had a monopoly, would not admit of it. The necessary work will probably now be done.

The tug Trio fitted out January 2d, was engaged in carrying stone and timber from Rattlesnake island to Put-in-Bay previous to the appearance of this last "cold snap" She is now ice bound at the latter mentioned island.

The last quarterly report of the Treasury Department gives the number of vessels and tonnage, entered and cleared at this port for that quarter, as-follows: Entered American 96, tonnage, 6,056; foreign 13, tonnage, 1509. Cleared American 96, tonnage 6170; foreign 3, tonnage 874. The summary of entrances and clearances figures up 208. This is a good showing.

The Portland Boiler Co. is building a steel boiler for the steamer Louise. F. K.

PORT HURON.

The following notes are taken from the Sunday Commercial:

The ferry Beckwith's machinery is receiving an overhauling.

The ferries are now running from the foot of Butler street.

Passage between this city and Algonac is now made by stage.

The tug Kittie Haight will be sold at auction, at Sarnia, Friday, January 15th.

On account of the ice the steamer Mary has quit running on the river route.

The propeller Concord has gone to Toledo after a cargo of coal for Botsford Bros.

The Wolverine Drydock Co. will build a stationary dock the coming season.

The tug Merrick has been put into readiness for an ice blockade and is now kept at Point Edward.

The steamer Hiawatha was making regular trips between Sarnia and Wallaceburg the fore part of the week.

The tug River Queen has been seized at Sarnia for a $2,000 debt. She is owned by Captains Cornwall and Currie, of this city.

The steamer Excelsior has made eight trips between Marine City and Detroit this winter, carrying 7,200 barrels of salt.

Mark this down in your diary, that the scow Magruder arrived at this port from Oscoda, with a cargo of lumber, on the 4th day of January, 1886. The first time a like circumstance has happened in 30 years.

Captain Wm. Forbes, who has purchased the property on the south of Pine Grove park, together with gentlemen from Buffalo and Bay City, will proceed at once to build a large elevator on the river front of the property, provided the city does not wish to purchase the land for park purposes.

DETROIT.

Special to the Marine Record.

Jan. 12.—The Marine Engineers' Association, of this city, are to hold their annual banquet next Tuesday evening,at the Bucher Biddle House, which promises to be a grand affair. They have grown in numbers and are second to no other organization in this city, with funds in the treasury amounting to $12,000. At their recent election of officers Mr. William Cullen, of the steamer Idlewild, was chosen president, and very ably fills that position.

At Trenton John Craig is rebuilding the schooner John Jewett which will be thorough in all respects. The new vessel he has in process of construction for D. Whitney, jr., is ceiled and otherwise progressing. James P. Donaldson & Co. furnish the entire fitout, including a Providence windlass.

There are laid up at Trenton the steamers Russell Sage, Gault, and A. L. Hopkins, of the Wabash line, also the steamers Manistique, Schoolcraft, propellers Glasgow, tugs Torrent, Niagara, and Effie L., steamyacht Sigma, schooners Florence M. Dickenson, Lilly May, Owasco, Monticello, Montblanc, Montmorency, John Jewett, Eureka, and India. The most of these vessels will require more or less repairs during the winter.

It is somewhat remarkable,almost amounting to a phenomenon, in looking back to the two seasons' lake casualities that there should be such a marked difference, both as to numbers and figures. The navigation of 1884, as appears by the record, was attended with 884 disasters, and the losses, $1,616,300 while in 1885 there were but 469 casualities with losses approaching nearly $2,000,000.

The new steamship in process of construction at the Detroit City Drydock will be furnished with an American Ship windlass by J. H. Donaldson & Co.; also the new steamer the same company are building for E. M. Peck.

Suit was brought the other day in the United States district court, this city, by a wharf owner against the tug Hercules for encroaching too far on said premises at various times. The case being somewhat peculiar in its character the judge decided to postpone it until the arrival of Judge Baxter.

Contrary to past winters the sail lofts are comparatively deserted by loiterers who have made them places of resort to spin yarns of the past, as there is but little sailmaking going on at present. Where they make their headquarters we have been unable thus far to discover.

A fine lodge room is being fitted up near the foot of Woodward avenue, for the accommodation of the Marine Engineers' Association, which will be ornamental in its various departments.

The propeller City of Concord which was temporarily winter-bound at Toledo, managed to extricate herself from that port for Port Huron, passing here on Saturday last, and as a matter of winter navigation it may be also stated that the schooner J. H. Magruder arrived here on Thursday last from Oscoda with a cargo of lumber, sailing the entire distance. This event is without a precedent in the annals of winter navigation by a sail craft, and her captain whose name we regret we have not at command, is deserving of much credit for his hardy perseverance.

The schooner Adventure is receiving a partial reconstruction at this port, consisting of several new frames and a ceiling.

The steambarge Mary Pringle is having new plank shear, rail, decks, and house forward, to improve her accommodations.

Candler Brothers' pile driver, which we stated some time ago had sunk while being towed by the tug J. L. Miner, through ice from Lake St. Clair, has been found at Grassy island and towed to this city, minus the boiler which remains there. The hammer which was lost in Lake St. Clair was not recovered. The total loss is estimated at $8,000.

The schooner Groton was on Saturday transferred to an elevator to take on a cargo of wheat for the winter.

Alexander White, a sailor, sallied out from his winter moorings a few nights since, and drifted into Atwater street, and while coming in stays, collided with a bullet from a revolver in the hands of a land shark, receiving a wound in his arm which will lay him up for some time. He was taken to the marine hospital for the requisite repairs.

The cold snap set in here on the 5th inst., although there is but little ice in the Detroit river, yet it is intensely cold.

The steambarge George L. Colwell and consorts, which set out for this port a few days since from Buffalo, failed to reach here and have laid up at Port Colborne.

Captain S. W. Whipple, the marine artist of this city, has just finished two excellent paintings of the steamyacht Pastime which are very much admired by all connoisseurs.

A jam of ice in the St. Clair river on Saturday last caused a rise of four feet of water at Port Lambton, driving numerous residents from their domicils, with more or less damage to household effects. It was an incident which rarely if ever occurs on that river, and was but of few hours' duration.

From some unknown cause there has been very few visitors from abroad this winter, and aside from what has been previously recorded but little of buying and selling going on. HALL.

BAY CITY.

Special to the Marine Record.

The fore part of the past week things were pretty lively around the river. Monday the tug Anna towed the barge Wand, of the Hawgood & Avery fleet, down from East Saginaw to the drydock. Mr. Wm. Sharp had a couple of lighters loaded with lumber, and transferred, and there was considerable raft transferring. Tugs Anna, Harly, Florence, Sarah Smith were all in commission and more wanted.

In my last I said the steambarge Kitty Forbes had her repairs done at Wheeler's That was a mistake. The work was done at Whittauer's drydock and Frank Wheeler superintended the work.

At Whittauer's, or Bay City, drydock the steambarge Mills is to receive steel arches and new mast and a general overhauling. Her consort, the barge Jupiter, will receive new deck frames and decks and general repairs to make them in good condition. The side wheel steamer Dove is also at the dock for general overhauling. The towbarge C. H. Davis is at the dock for new deck frames and decks and other minor repairs. The Oneonta is here for new deck frames and decks, rail, stanchions, and a general overhauling to put her in good shape for the coming season. Wednesday it froze up hard and put a stop to all river work. The Senator Blood is taking off her deck load of lumber, (she was frozen in last fall with load on), to overhaul her decks and stanchions and get new bulwarks and other necessary repairs to put her in good shape again.

The dimensions of Hawgood & Avery's new barge is 235 feet long, 40 feet beam, 19 feet hold and will be single deck, with supporting beams, kneed off to strengthen her. She will have a 10 inch by 5/8 inch iron girder or ribbon around her top sides, and be diagonally strapped with 4 by 5/8 inch iron from top ribbon down under turn of bilge. They calculate to make her A1 in every respect. Will have four masts, and estimated to carry 2,400 tons.

Mr. James Roberts, formerly manager of of C. C. Blodgett's barge Passaic and tow, and latterly manager of the Saginaw Valley and Sanilac, has moved from his old quarters to the foot of Center street, the present location being better adapted to his increasing coal and wood trade.

Captain Mike Madden, of the steambarge C. H. Green, paid Bay City a visit on the 7th.

Captain Burnett, of the steambarge Hubbell, arrived home from Cleveland after being frozen in at Detroit. They laid up, and when the warm spell came they went down and fitted out again and got through to their destination.

Captain Riley Burlington, of steambarge Music, is home, having laid up at Buffalo with tow.

F. W. Wheeler, shipbuilder, has contracted with Ward's line at Detroit to build a propeller 212 feet keel, 34 feet beam, 14 feet depth of hold.

Report says that the lumber firm of Gratwick, Smith & Freyer, of Tonawanda and Sauble, had a representative around, trying to buy a powerful tug, to be used as a fire tug and to do their towing at the Sauble. The idea is a good one and we hope they may be able to secure one that suits them.

On Friday night a blizzard struck Bay City, raging all day Saturday. It will make the lumber men happy if nobody else, as up to this time there has been no frost in the woods. G.

CLAYTON.

Special to the Marine Record.

Mr. S. W. Mercier, boat builder, has a fine steam yacht nearly completed. Length of keel 27 feet, 30 feet over all, 5 feet beam, 2 feet depth of hold. Oak keel and plank sheer, planked with pine, deck forward and aft; from the seats up she is staved with pine and ash with a light oak moulding. This yacht is for Mr. Shipman, of Rochester, N. Y., the inventor of the well known Shipman kerosene engine. This is the first of three similar boats. It is of fine model, is built unusually strong, and speaks well for the builder. Mr. Mercier has built some of the finest model fishing boats on the St. Lawrence river.

HISTORY OF LAKE NAVIGATION.

BY J. W. HALL.

Written for the Marine Record:

CHAPTER LII.

Early in the season of 1855 Wilcox, Luff & Fuller entered into the ship chandlery business at Detroit as successors to E. W. Hudson, and soon established a brisk trade.

J. L. Hurd & Co., at the foot of Second street, Detroit, entered upon the shipping business, as managers of the North Shore line of steamers between Detroit and Buffalo.

John Hutchings commenced a storage and commission and steamboat agency at the foot of Griswold street, Detroit; also Chas. L. Bancroft, at the foot of Shelby street.

C. B. Swain assumed the agency of steamers between Detroit and Buffalo, at Detroit; Sinclair & Co., at Toledo. In preceding chapters has been given the names of other houses which were kept in continuance save in few instances where changes were made, or retirements, which usually follow all branches of trade.

The Sault canal was completed this year, opening up communication with the Lake Superior region. The steamer Illinois, 927 tons, Captain Jack Wilson, was the first boat to pass through that thoroughfare, which occurred on June 18, 1855. She was followed by the steamer Baltimore, Captain John Shook, the Sam Ward, Captain Eastabrook, and the North Star, Captain B. G. Sweet, respectively, the same month. The Baltimore continued plying there, changing eventually, between Chicago and Lake Superior, until the fall of the same year, when she was wrecked at Sheboygan, on Lake Michigan, freighted with supplies.

Shipbuilders were by no means idle at this period of lake commerce, there being no less than one hundred and seventy craft of all classes, launched at various lake ports, stimulated by good freights, which prevailed throughout the season.

The new propeller Mary Stewart made her advent this season at Detroit, built for and owned by J. L. Hurd & Co., of Detroit, to run on the North Shore, between Detroit and Buffalo, commanded by Captain Henry Watts.

The propeller Potomac, 818 tons burden, built by Luther Moses at Cleveland, came out this season. The steamer T. F. Parks, 386 tons, built by D. Bruce, at Malden. Propeller Old Concord, 457 tons, built by W. E. Difon at Newport, River St. Clair. Propeller T. M. Bradbury, 445 tons, built by L. Moses at Cleveland. Propeller Chicago, 758 tons, built by Bidwell & Banta, Buffalo. Steamer Forest Queen, 462 tons, built by D. Bushnell at Newport. Steamer Planet, 1,153 tons, by Bushnell at Newport. Tug Relief, 362 tons, by Van Slyke & Notter, Buffalo. Tug Rescue, 275 tons, by Bidwell & Banta, Buffalo, beside sail vessels, sufficient to make up the complement above noted.

Soundings were taken of Buffalo harbor by Marine Inspectors Captains E. P. Dorr, D. P. Dobbins and John Munson, who reported a very dangerous and threatening condition of things for vessels. They found only ten feet of water and a narrow channel from the lighthouse to the breakwater' and recommended improvements to be immediately carried out.

The Toronto Colonist reports a brisk trade in cereals, and the demand for flour increasing. During one week 13,500 bbls. were sold at $8.50 and $9.00; wheat at $2.00 per bushel. The receipts of Canadian breadstuffs at Oswego for one week, 29,029 bbls. of flour, and 54,000 bushels of wheat; the latter commodity realizing $2.25 per bushel. At Milwaukee choice winter wheat brought $1.85 per bushel.

At a convention of railroad magnates held at Detroit, it was resolved that no annual or general passes be given except to general officers of respective roads, and that half-fare passes to the clergy be at once discontinued.

The following craft passed out of existence during the season of 1855:

Steamer Baltimore, wrecked at Sheboygan, $15,000.

Steamer Queen City, burned at Toronto dock, $30,000.

Steamer Porcupine, burned at Prescott, Lake Ontario, $6,000.

Steamer Sebastapol, lost at Milwaukee; seven lives lost, $350,000.

Propeller Oregon, exploded above Detroit, with ten lives lost, $8,000.

Propeller Rossiter, wrecked on Lake Michigan, $7,000.

Propeller Charter Oak, foundered in Lake Erie, ten lives lost, $10,000.

Propeller Delaware, wrecked at Sheboygan, with loss of eleven lives, $35 000.

Propeller Fintry exploded and sunk in Lake Erie, with eight lives, $80,000.

Bark L. M. Hubby, lost on Lake Michigan, loss of eleven lives, $18,000.

Bark North Star, wrecked on Long Point, $12,000

Bark Pathfinder, lost near Chicago, $25,000.

Bark Black Maria, wrecked near same place, $25,000.

Bark Halliwell, wrecked at Long Point Cut, $16,500.

Brig Josephine, wrecked at Port Burwell, $2,000.

Brig Allegheny, sunk by brig Young America in Lake Erie, $8,000.

Brig Tuscarora, wrecked at Chicago, $9.500.

Brig Baltic, wrecked at Port Stanley, $3.500.

Brig Julia Dean, wrecked on Skillagalee, $50,000.

Brig H. Wheaton, wrecked at Long Point Cut, $22,000.

Brig John Irwin, wrecked at Two Rivers, Lake Michigan, $20 000.

Brig Virginia, lost off Long Point, Lake Erie, $5,800.

Schooner Sylph, lost near Oswego, $6,000.

Schooner Saratoga, lost near Chicago, $4,000.

Schooner Defiance, foundered in Lake Ontario, loss of ten lives, $8,000.

Schooner Visitor, sunk near West Sister, and one life lost, $4,000.

Schooner Cygnet, sunk by steamer Western World on Lake Erie with loss of one life, $4,000.

Schooner E. M. Lyon, sunk by propeller Delaware in Lake Erie, $4,000.

Schooner Mansfield, sunk by the schooner Telegraph in Lake Michigan, $27,000.

Schooner Napoleon, sunk off Erie, $4,800.

Schooner Julia, burned from combustion, $1,000.

Schooner Asia, sunk by propeller Forest City in Lake Michigan, $20,000.

Schooner Sparrow, wrecked near Buffalo, $800.

Schooner Brittain, lost on Long Point, $12 500.

Schooner Ivanhoe sunk by schooner Arab in Lake Erie, $7,000.

Schooner Wiman, lost at Point au Barque, $2,500.

Schooner G. W. Weeks, lost at Pere Marquette, Lake Michigan, $3,000.

Schooner H. David, sunk in Lake Ontario, $8,000.

Schooner St. Clair, sunk off Point au Barque, $2,000.

Schooner Dean Richmond, wrecked near Racine, $17,000.

Schooner Sam Strong, wrecked at Pere Marquette, $7,400.

Schooner Liverpool, lost at Grand Haven, $2.000.

Schooner Koefer, wrecked at Erie, $4,000.

Schooner Reindeer, lost near Chicago, $3,000.

Schooner Belle, sunk off Sodus, Lake Ontario, $5,600.

Schooner Pearl, wrecked on East Sister, $16,000.

Schooner Lodi, lost at Grand Haven, $1,000.

Schooner Hope, lost at Beaver Island, $25,500.

Schooner James Hughes, wrecked near Muskegon, $2,500.

Schooner Crescent, wrecked on North Fox Island, $35,000.

Schooner De Witt Clinton, lost near Kalamazoo, $2,000.

Schooner J. B. Skinner, lost on east shore of Lake Michigan, $2,500.

Schooner Vermont, lost at Grand Haven, $5,000.

Schooner Rockwell, wrecked near Muskegon, $1,500.

Schooner Steinhart, foundered in Lake Michigan, $2,000.

Schooner Knickerbocker, lost on Lake Michigan with one life, $2,000.

Total loss of property during the season of 1855, $2,797,839.

Number of lives lost, 118.

Steamers 4, propellers 6, barks 5, brigs 8, schooners 31.

The machinery and other parts of the steamer Mayflower which was wrecked at Point au Pellee in the fall of 1854, were recovered by the steamer Huron during the season of 1855, which came near being wrecked while engaged in the undertaking.

Early in the season of 1855 the steamer Pearl, owned by Captain Ward, was sold to A. D. Dickenson and Captain J. B. Goodsell, of Detroit, and placed on the route between that city and New Baltimore, making daily round trips.

The total receipts of grain at Chicago in 1855 was 20,487,953 bushels.

The value of imports at Buffalo were $50,346,819, an increase over 1854 of $5,315,888. There were 9,231 arrivals at that port during the season, with a tonnage of 3,360,233 tons.

The tonnage owned at Sackets Harbor was 6,227 tons, at Oswego 42,460 tons, Genessee 233 tons, Niagara 468 tons, Oswegatchie 4,485 tons, Buffalo 76,952 tons, Cape Vincent 6,609 tons, Presque Isle 9,269 tons, Cuyahoga 51,078 tons, Sandusky 8,051 tons, Maumee 3,763 tons, Detroit 65,058 tons, Mackinaw 4,431 tons, Milwaukee 15,673 tons, Chicago 50,972 tons.

The tonnage entered and cleared at Cuyahoga was 1,782,493. Value of imports and exports $162,185,640. Entered and cleared at Buffalo 3,330,232 tons; value of imports and exports, $333,023,000. At Sandusky, value of imports and exports, $59,966,000. Maumee, $94,107,000. Entered and cleared at Chicago, 2,632,000 tons; value of imports and exports, $233,878,000. Entered and cleared at Detroit, 1,538,000 tons; imports and exports, $140,000,000. At Oswego, 1,607,000 tons; exports and imports, $145,235,000.

The total valuation of imports and exports throughout the lake region were $1,216.620,640. The losses by shipwrecks were $378,000, by stranding $11,350, and by collision $36,600.

THE FORMS OF SHIPS FOR WAR AND FOR PEACE.

Among a collection of very valuable papers recently published by the British institution of civil engineers, is a report of a lecture of exceptional naval by the great naval architect, Sir Edward J. Reed. The address was a short one, but very comprehensive. The speaker begins by comparing the conditions affecting the long and the short ship of equal weight-carrying power, showing that the character of the work for which the vessel in intended, and even the nature of the material of which its hull is composed, are circumstances affecting the form of maximum efficiency. The long ship of small wave-making action, but of great friction producing power, is shown to be best for the case of light hull and heavy loading; the short, broad vessel, on the other hand, is best for the case of the heavily plated, lightly loaded ship. The heavier the armor, the shorter and broader, proportionately, must be the hull chosen to do the best work. The fact that the shorter and broader, though for a given displacement the lighter, ship demands greater engine power, brings another complication into the problem; and it is for the naval architect and engineer to seek the form which, on the whole, will be best for his purpose. On the whole, it is found that, for war vessels, the heavier the armor to be carried, the fuller the form to be chosen; in other words, the value of a ship for purposes of war is not to be judged at all by the magnitude of the so-called 'constant of performance' (cube of the speed, multiplied by the two-thirds power of the displacement, divided by the indicated horse power.) A ship with a high coefficient may be a very bad vessel for war purposes, even though easily propelled through the water. This is a very important principle in naval architecture, and is the more to be kept in view from the fact that it has been customary for many years to judge the value of a design by the magnitude of this constant or some similar quantity. The application of a correct method of comparison shows the Belerophon, a short ship of 300 feet length, to be superior as a war vessel to the Minotaur,—a ship of 400 feet length, and of much finer form. The smaller ship was 'handier,' attained the same speed, carried an equal battery better protected, had the same engine power, and cost less than three-quarters as much as the larger. But her coefficent was about 15 per cent lower. This comparison effected a revolution in naval design of Great Britain. The later iron clads are built with a length only about five times the breadth, though steaming 16 and 17 knots.

It is found, on carrying out the investigation, that the short, broad ship, which should be given, nevertheless, fine 'entrance' and 'run,' may often be subject to less resistance than a rival craft of greater length and less beam. This was shown by Froude's experiments on the Ajax and a rival form. The magnitude and position of the 'bow wave' relative to the stern of the ship is one of the important modifying conditions. Should that wave take the right position, the resistance may be much less than where it comes in the wrong place. The action of the screw, in relieving the pressure of the water under the stern, is another serious consideration. Froude found, that, if it could be placed one-fourth or one-third the ship's beam from the stern of the vessel, the resistance to propulsion would be very much decreased. The introduction of a lengthened middle body may or may not aid; but no principle or formula has yet been found to determine what the effect will be.

Of the three principal-elements of resistance, the friction of the skin of the ship the wave making effect, the eddy resistance, the first is usually the greatest. In very fast vessels the second and third may approximate to equalty with the first. At low speeds the friction may be nine-tenths the total; at high speeds, such as now are becoming common, the frictional resistance may become as low as one-half the total. Comparing war vessels, it is seen that fine-lined ships having thick armor would require to be of enormous length, size, cost, and power, while the same offensive and defensive power may be obtained in full lined ships at much less sacrifice of all desirable qualities.

No insuperable obstacles exist to-day to the production of armored war vessels capable of defying all the ordnance of the world, and of carrying their own armament at a speed of 18 or 20 knots into the waters of any enemy. The cost of such vessels has becomes so great, however, that progress in this direction has apparently nearly or quite ceased for the present. The engineer and naval architect is prepared to do his part of the work whenever the nation shall call upon him.

This was the closing lecture of a course covering the general subject of hydromechanics, and was considered a very fitting final address.—*Science.*

ECONOMY OF BRAIN WORK.

"Pa, I'm not going to learn any more geography lessons."

"Why? Have you been excused from geography lessons?"

"No, but—"

"I presume your teacher has got tired of such a stupid pupil."

"Teacher nothin.' I'm the feller that's got tired. I read in a paper that the geography of over half the globe would be changed by future explorations and I'm going to wait. I want to get it straight before I put in so much hard work."

LITERARY NOTICES

HARPER'S MAGAZINE for January, in richness of illustration and in its literary attractions, seems like another Christmas number. It has, indeed, several articles especially appropriate to the season. Not the least remarkable of these is a Christmas sketch—"an echo of plantation life" entitled "Unc, Edinburg's Drowndin'," by Thomas N. Page, the author of "Marse Chan." It is as faithful in its pictures of plantation life as it is in its reproduction of the negro dialect, and is strikingly humorous and pathetic. Archibald Forbes, the famous war correspondent, tells the story of a Christmas holiday spent with Germans on the fore-posts of Paris during the Franco-German war. The narrative is graphically illustrated from sketches made on the spot and at the time by Mr. Sidney P. Hall. Mr. Howells, in this number, gives the first installment of the new editorial department which he has undertaken to conduct in Harper's Magazine—the Editor's Study. It follows the Easy Chair, and Mr. Curtis, in the latter, gracefully introduces his readers to the adjoining department. The "Study" itself is quaintly described by Mr. Howells. Its "vast windows of flawless plate," he says, "look out upon the confluent waters of the Hudson and the Charles, with expanse, in the middle distance, of the Mississippi, the Great Lakes, and the Golden Gate, and, in the background, the misty line of the Thames, with reaches of the remoter Seine, and glints of the Tiber's yellow tide." Among the other notable papers is that by Major General George B. McClellan, on the "Militia and the Army," which may be considered as his last words to his fellow countrymen.

ST. NICHOLAS FOR JANUARY, 1886, is both in point of time and contents another Christmas number. W. D. Howells leads off with his long-promised story, which is delightfully unconventional, and has the bewitchingly suggestive title, "Christmas Every Day," and some amusing illustrations by his little daughter. Mrs. Frances Hodgson Burnett follows with another installment of her charming serial, "Little Lord Fauntleroy;" Horace E. Scudder contributes the opening chapters of his story of the life of George Washington, which will be illustrated from many sources; in the department for "Middle-aged Little Folk," Palmer Cox tells about "The Brownies Tobogganing;" and in the pages devoted to "Very Little Folk," Laura H. Richards, assisted by a full-page picture, explains "Why Coralie was Ill." There is not room to tell of the many other attractions of this number.

THE January number of the ATLANTIC begins with the first two chapters of Charles Egbert Craddock's new serial, "In the Clouds," which shows the same strong touch and remarkable descriptive power that have distinguished her other novels of Tennessee life. This is followed by a paper on "The Free Negroes of North Carolina" (who were free during the slave regime), by Mr. David Dodge, who writes most entertainingly of this little known class. The editor of the Atlantic, Mr. Aldrich, has a very bright short story called "Two Bites at a Cherry," which only Mr. Alrich could have written. Dr. Holmes has a paper in the New Portfolio series, "A Cry from the Study;" "The Political Consequences in England of Cornwallis's Surrender," forms the subject of a thoughtful article by Mr. John Fiske; Interesting installments of "The Princess Casamassima," by Henry James, and Mrs. Oliphant's "A Country Gentleman," are also given in this issue. The last number of L'Art forms the subject of an able criticism, while the Contributors' Club is full of the stimulating thought and pleasant fancy that distinguish this department. Houghton, Mifflin & Co., Boston.

THE JANUARY CENTURY.—Conspicuous among the varied features of the January Century are the short stories. "Trouble on Lost Mountain," by Joel Chandler Harris (Uncle Remus), is even more powerful than his longer character novelette, "At Teague Poteet's," the scene of both being laid among the moonshiners of northern Georgia. Lost Mountain is a neighbor of the Kenesaw mountain of Sherman's Atlanta campaign; and that its people are curiously individual, with a bent for humor and dramatic action, is most artistically revealed by Mr. Harris, and also by Mr. Kemble, who supplies the character sketches. In the other short story of the number, "The Cloverfield's Carriage," by Frank R. Stockton, the humorous motive is the desire of a negro coachman who had left his former owners, in order to make his freedom appear a reality, to recover his former dignity as a trusted servant of the family. Mrs. Mary Hallock Foote's new serial of western life, "John Bodewin's Testimony," in the third part points strongly to dramatic situations. Mr. James's "Bostonians" assumes new and interesting phases as it approaches the conclusion, which will be reached in the next number. In the war series we have General John Pope's pungent and personal description of "The Second Battle of Bull Run," which in its fighting, its depressing results, and in its controversies was one of the most remarkable events of the war. Few of the war articles have been so fully illustrated with map and pictures; and the "Recollections of a Private," describing "Two Days of the Second Battle of Bull Run," is replete with incident and attractively illustrated.

The sides of the steambarge Indian, which is lying sunk near Belle Island, are rapidly disappearing. A number of planks are missed daily.

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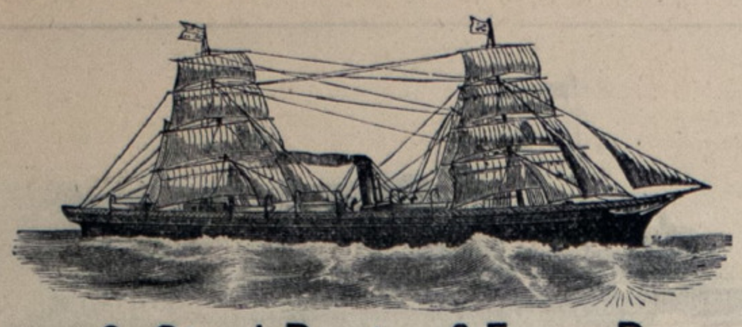

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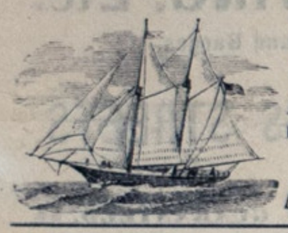

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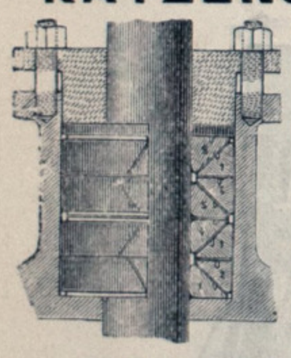

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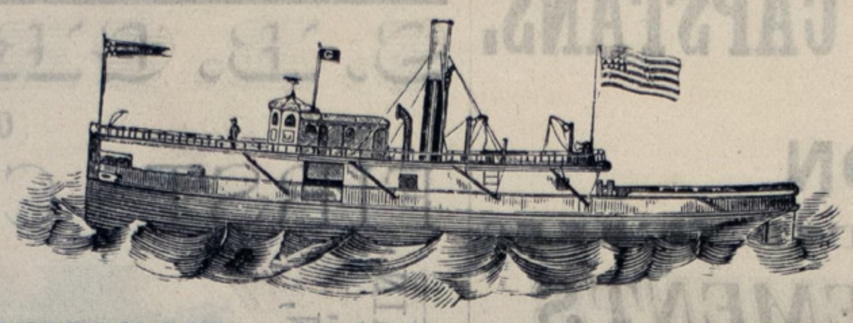

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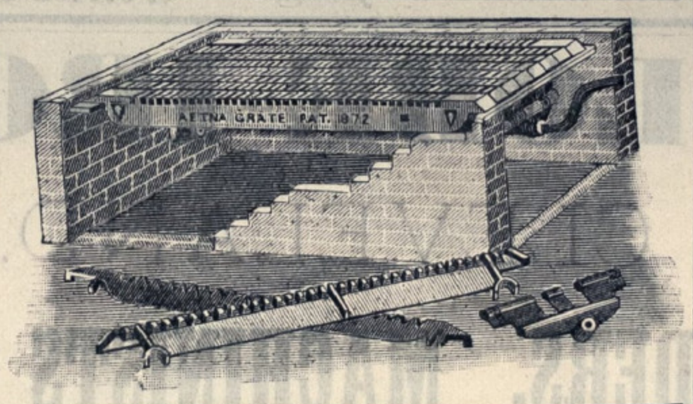

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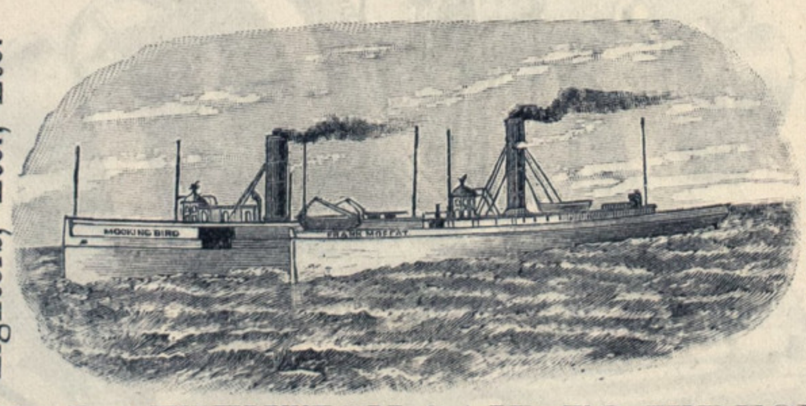

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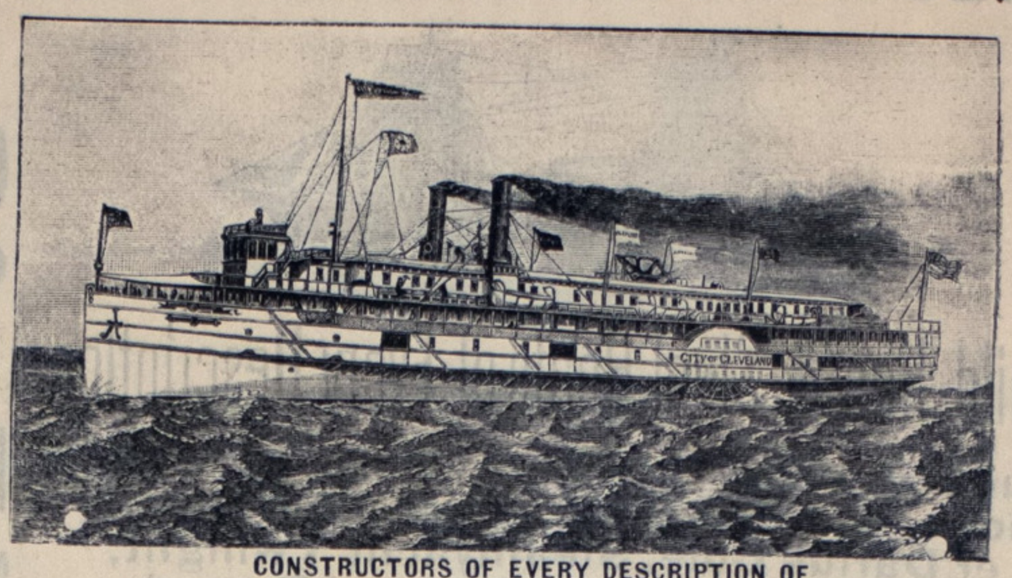

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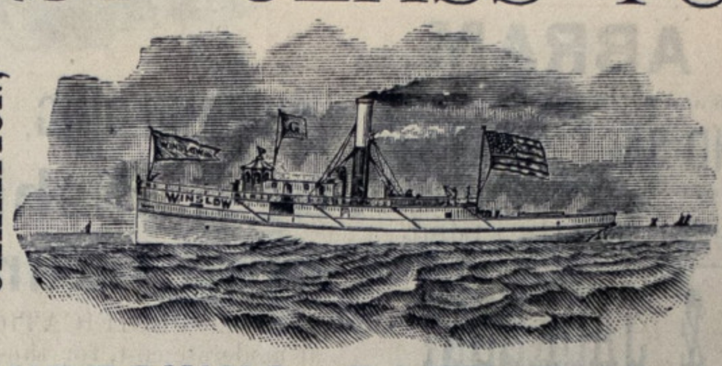

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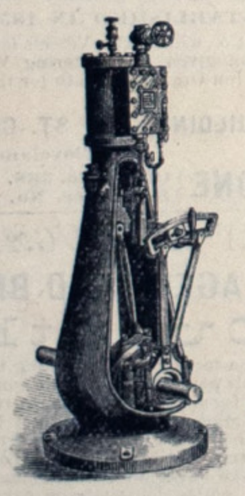

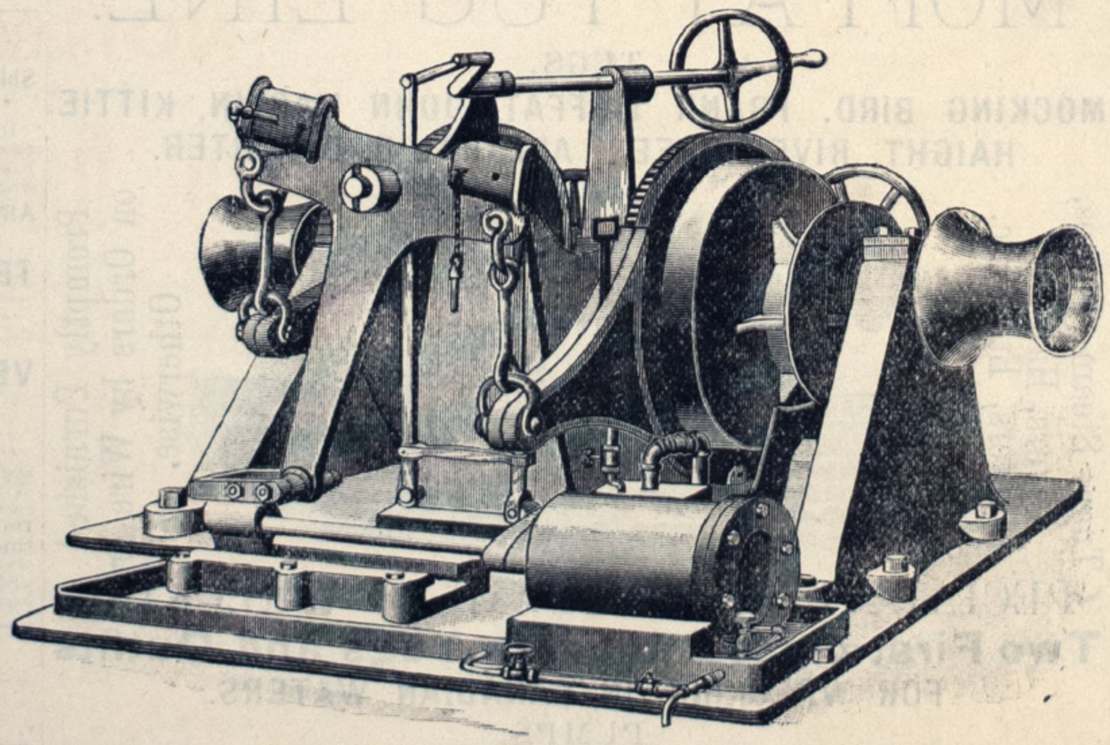

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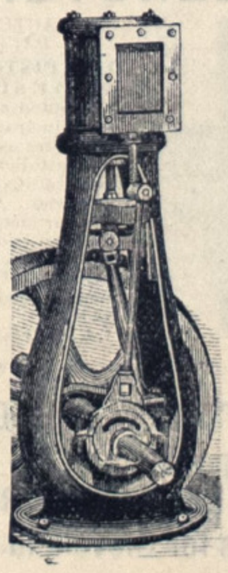

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